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#### (54) CAPTURING PARTICLES

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See application file for complete search history.

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#### (57) ABSTRACT

Methods and systems capturing particles suspended in a fluid flowed through a micro-channel, can include flowing the fluid including the particles to be captured through a micro-channel and past a groove defined in a surface of a wall of the micro-channel such that flowing the fluid past the groove forms microvortices in the fluid; contacting at least some of the particles against an adherent disposed on one or more of walls of the microchannel after the microvortices form in the fluid; and capturing at least some of the particles contacting the adherent.

## 21 Claims, 15 Drawing Sheets

